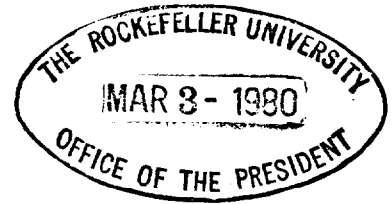NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550

Division of Information
Science & Technology

February 28, 1980

NSF — Info Sci
Working Group

Joshua Lederberg
President
Rockefeller University
1230 York Avenue
New York, NY 10021

Dear Dr. Lederberg:

The Division of Information Science and Technology was
recently established by the National Science Foundation
to provide a focus for federal research support in this
rapidly growing and important new area. In establishing
research priorities and identifying core research problems
of information science the Division has had the support
of a distinguished Advisory Committee, whose membership
is detailed in Enclosure "A" to this letter. This Com-
mittee, with the collaboration of Working Groups of world
class experts, has already considered behavioral and
linguistic research bearing on information science, and
prepared a soon-to-be published report of the same title,
and research problems concerned with modelling the role
of information in the economy. The participants in these
Working Groups are listed in Enclosures "B" and "C".

The Advisory Committee is now turning its attention to
the thorny problem of considering the appropriate role
for the National Science Foundation, and more broadly,
for federal support of basic and applied research, in
information technology. This field, critically important
to the national interest and very rapidly advancing, has
been successfully nurtured and developed by the private
sector. Yet the question may be raised:

Are there research project 'gaps' in information technology
that are not likely to be filled by the private sector
for various reasons, but in which there is a significant
national interest and for which federal research support
is appropriate?

It may be that there are no 'gaps' in information technology which fulfill these conditions; if so, it is important that the National Science Foundation and the Federal Government know it.
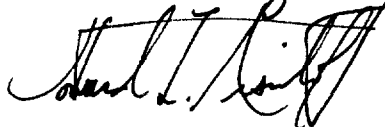
A second important, and more subtle, question, is this: What information science research problems are likely to decrease in priority as the result of anticipated advances in information technology? It is important that the Foundation know where not to place research support funds.

The Advisory Committee has asked its members Paul Strassmann (Vice President, Xerox Corporation) and Richard Tanaka (consultant and former President of the International Federation of Information Processing Societies) to organize and chair a Working Group on Information Technology to consider these and related questions. Joe B. Wyatt (Vice President for Administration, Harvard University), Chairman of the Advisory Committee, and I are ex-officio members of this Working Group.

I am writing to invite you to join the Working Group. It will consist of approximately 20 decision making leaders from the information technology business community and a small number of select representatives from appropriate federal agencies. We plan a one-day meeting late this Spring (at a time selected to accommodate the schedules of the participants) following careful preliminary planning (to be conducted by correspondence) to select and define issues and problems for consideration at the meeting. Your staff will be able to assist you in these preliminary stages which will not, in any event, impose an onerous burden. The principal objective of the meeting will be to identify and establish priorities amongst various information technology research support opportunities and strategies in the framework of the two questions posed earlier in this letter. The meeting will be carefully structured using "on-line" electronic devices and will be planned to help pinpoint issues and projects based upon the professional judgment of the participants. We plan to publish the Working Group's conclusions and otherwise broadly disseminate them to decision makers in government and in the private sector; they will be specifically used to guide the Division's program during the next five years.

The results of this meeting can have a meaningful effect
on the directions of government funded research in informa-
tion technology. On behalf of the Advisory Committee,
I hope that you will agree to join us, and I look forward
to your affirmative reply.

Sincerely yours,

Howard L. Resnikoff
Division Director

P.S.: For your information I am enclosing a list of
those to whom this letter has been sent.

Enclosures

cc: Paul Strassmann
     Richard Tanaka
     Joe B. Wyatt